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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re National Stage Application of PCT/FI01/00688

HAUMONT

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FOR: DETERMINING SERVICES ACCESSIBLE VIA A SUBSCRIPTION IN A  
COMMUNICATION SYSTEM

\* \* \* \* \*

April 1, 2002

**PRELIMINARY AMENDMENT**

Hon. Commissioner of Patents  
Washington, DC 20231

Sir:

Before beginning examination, please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

On the first page, just after the title, please insert the following paragraph:

--This is a National Stage application of International Application No.

PCT/FI01/00688, which was filed on July 31, 2001, which designated the U.S., and was filed in the English language.--

**IN THE CLAIMS:**

Please amend claims 1-24 as follows:

1. (Amended) A method of determining services accessible via a subscription having an account and at least a first limit in a communication system,

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the method comprising:

defining at least a first and a second set of services to be used with the subscription,  
each set of services defining services accessible via the subscription;  
comparing the balance of the account with the first limit;  
using the first set of services when the balance of the account does not reach the first  
limit; and  
using the second set of services when the balance reaches the first limit.

2. (Amended) A method as claimed in claim 1, the method further comprising:

using in the communication system access point names to define where and how to  
connect the user of the subscription;  
selecting during connection activation the access point name to be used with this  
connection;  
defining a first access point name for the first set of services; and  
defining a second access point name for the second set of services.

3. (Amended) A method as claimed in claim 1, the communication system  
comprising a firewall; and

the method further comprising defining accessible services via a set of services by  
defining at least a firewall configuration for the set of services.

4. (Amended) A method as claimed in claim 1, the method further comprising  
defining accessible services via a set of services by defining at least a range of allowed  
addresses for the set of services.

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5. (Amended) A method as claimed in claim 1, the method further comprising [the step of] indicating the set of services which is to be used by the charging characteristics to be applied.

6. (Amended) A method as claimed in claim 1, the second set of services comprising services free of charge.

7. (Amended) A method as claimed in claim 1, the second set of services being a subset of the first set of services.

8. (Amended) A method as claimed in claim 1, the method further comprising informing the user of the subscription of the services accessible via the second set of services in response to using the second set of services.

9. (Amended) A method as claimed in claim 1, wherein  
the subscription is a postpaid subscription;  
the first limit is the maximum allowed amount of the bill; and  
the balance of the account indicates the amount of the bill to be charged from the subscription.

10. (Amended) A method as claimed in claim 1, wherein  
the subscription is a prepaid subscription;  
the first limit is the preset minimum value for the account; and  
the balance of the account indicates the amount of money the subscriber still has in use.

11. (Amended) A method as claimed in claim 10, wherein at least the second set of services comprises a deposition service.

12. (Amended) A method as claimed in claim 11, wherein the depositing service utilizes the authentication of the communication system when authenticating the one who wants to deposit.

13. (Amended) A communication system providing a subscription with an account and at least a first limit, the communication system comprising:

a first node monitoring the balance of the account, wherein

the communication system comprises memory for storing definitions of at least a first and a second set of services to be used with the subscription, each set of services defining services accessible via the subscription; and

the communication system is arranged to compare the balance with the first limit and to allow access to the first set of services when the balance has not reached the first limit, and to allow access to the second set of services when the balance has reached the first limit.

14. (Amended) A communication system as claimed in claim 13, wherein

the first node is arranged to perform the comparison during connection activation and to indicate which set of services is to be used with the connection; and in response to a connection with access to the first set of services to trigger deactivation of the connection when the balance reaches the first limit.

15. (Amended) A communication system as claimed in claim 13, wherein the communication system further comprises a second node maintaining subscription information including at least an indication indicating an allowed set of services for the subscription;

the first node is arranged to perform the comparison and in response to the balance reaching the first limit to direct the second node to set the second set of services as the allowed set of services and in response to the balance, not any more reaching the first limit after reaching the first limit, to direct the second node to set the first set of services as the allowed set of services; and

the second node is arranged to send at least information on the allowed set of services as a part of the subscription information to the communication system during connection activation; in response to a received direction from the first node to modify the first indication to correspond to the received direction; and in response to modifying the allowed set of services of an active connection to trigger deactivation of the connection.

16. (Amended) A communication system as claimed in claim 15, wherein the subscription information maintained in the second node further includes at least identification information on the first and second set of services and the indication indicates which one of the sets of services is the allowed set of services.

17. (Amended) A communication system as claimed in claim 13, wherein the communication system supports the General Packet Radio Service; and the connection is activated by activating a PDP context.

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18. (Amended) A network node in a communication system providing a subscription with an account and at least a first limit, the network node being arranged to monitor the balance of the account, wherein

the network node is arranged to compare the balance with the first limit and to allow access to a first set of services when the balance does not reach the first limit, and to allow access to a second set of services when the balance reaches or has reached the first limit.

19. (Amended) A network node in a communication system providing a subscription with an account and at least a first limit, the network node being arranged to monitor the balance of the account, wherein

the network node is arranged to communicate with a second network node; to compare the balance with the first limit; and to indicate to the second network node which set of services from among at least two different set of services defined for the subscription is the allowed set of services on the basis of said comparison.

20. (Amended) A network node as claimed in claim 19, wherein the network node is arranged to indicate the allowed set of services in response to the balance reaching the limit and in response to the balance not any more reaching the limit.

21. (Amended) A network node in a communication system providing a subscription, wherein the network node is arranged to receive from the communication system an indication indicating the use of a certain set of services from among at least two different set of services defined for the subscription; and in response to receiving the indication to provide access only to services included in the indicated certain set of services.

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22. (Amended) A network node as claimed in claim 21, wherein the network node is arranged, in response to receiving the indication, to inform the user of the subscription of the services accessible via the indicated certain set of services.

23. (Amended) A network node as claimed in claim 21, wherein the network node is arranged to receive an access point name as the indication of the set of services, the access point name being used in the communication system to define where and how to connect the user of the subscription.

24. (Amended) A network node as claimed in claim 21, wherein the network node is an application server.

Please see the Appendix for changes made to the claims.

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REMARKS

Claims 1-24 are pending in this National Stage application. By this Amendment, these claims are amended to further conform to U.S. practice, *e.g.*, to remove reference numerals and multiple dependencies. No new material is added to the claims.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached Appendix is captioned **"VERSION WITH MARKINGS TO SHOW CHANGES MADE"**.

Respectfully submitted,

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Enclosure: Appendix



**APPENDIX  
VERSION WITH MARKINGS TO SHOW CHANGES MADE**

IN THE SPECIFICATION:

The priority claim is recited.

IN THE CLAIMS:

1. (Amended) A method of determining services accessible via a subscription having an account and at least a first limit in a communication system,

[ c h a r a c t e r i z e d by] the method comprising[ the steps of]:

defining at least a first and a second set of services to be used with the subscription, each set of services defining services accessible via the subscription;

comparing [(203)] the balance of the account with the first limit;

using [(204)] the first set of services when the balance of the account does not reach the first limit; and

using [(207)] the second set of services when the balance reaches the first limit.

2. (Amended) A method as claimed in claim 1, [ c h a r a c t e r i z e d by] the method further comprising[ the steps of]:

using in the communication system access point names to define where and how to connect the user of the subscription;

selecting during connection activation the access point name to be used with this connection;

defining a first access point name for the first set of services; and

defining a second access point name for the second set of services.

3. (Amended) A method as claimed in claim 1[ and 2], [ c h a r a c t e r i z e d by ] the communication system comprising a firewall; and

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the method further comprising [the step of ]defining accessible services via a set of services by defining at least a firewall configuration for the set of services.

4. (Amended) A method as claimed in claim 1,[ 2 or 3, c h a r a c t e r i z e d by] the method further comprising [the step of ]defining accessible services via a set of services by defining at least a range of allowed addresses for the set of services.

5. (Amended) A method as claimed in [any of the preceding claims, c h a r a c t e r i z e d by] claim 1, the method further comprising [the step of ]indicating the set of services which is to be used by the charging characteristics to be applied.

6. (Amended) A method as claimed in [any of the preceding claims, c h a r a c t e r i z e d by] claim 1, the second set of services comprising services free of charge.

7. (Amended) A method as claimed in [any of the preceding claims, c h a r a c t e r i z e d by] claim 1, the second set of services being a subset of the first set of services.

8. (Amended) A method as claimed in [any of the preceding claims, c h a r a c t e r i z e d by] claim 1, the method further comprising [the step of] informing the user of the subscription of the services accessible via the second set of services in response to using the second set of services.

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9. (Amended) A method as claimed in [any of the preceding claims  
c h a r a c t e r i z e d by] claim 1, wherein

the subscription [being] is a postpaid subscription;

the first limit [being] is the maximum allowed amount of the bill; and

the balance of the account [indicating] indicates the amount of the bill to be charged  
from the subscription.

10. (Amended) A method as claimed in [any of claims 1 to 8, c h a r a c t e r i z e d  
by] claim 1, wherein

the subscription [being] is a prepaid subscription;

the first limit [being] is the preset minimum value for the account; and

the balance of the account [indicating] indicates the amount of money the subscriber  
still has in use.

11. (Amended) A method as claimed in claim 10, [c h a r a c t e r i z e d by]  
wherein at least the second set of services [comprising] comprises a deposition service.

12. (Amended) A method as claimed in claim 11, [c h a r a c t e r i z e d by]  
wherein the depositing service [utilizing] utilizes the authentication of the communication  
system when authenticating the one who wants to deposit.

13. (Amended) A communication system providing a subscription with an account  
and at least a first limit, the communication system comprising:

a first node [(SCP)] monitoring the balance of the account,

[c h a r a c t e r i z e d in that] wherein

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the communication system [(S)] comprises memory for storing definitions of at least a first and a second set of services to be used with the subscription, each set of services defining services accessible via the subscription; and

the communication system [(S)] is arranged to compare the balance with the first limit and to allow access to the first set of services when the balance has not reached the first limit, and to allow access to the second set of services when the balance has reached the first limit.

14. (Amended) A communication system as claimed in claim 13,

[characterized in that] wherein

the first node [(SCP)] is arranged to perform the comparison during connection activation and to indicate which set of services is to be used with the connection; and in response to a connection with access to the first set of services to trigger deactivation of the connection when the balance reaches the first limit.

15. (Amended) A communication system as claimed in claim 13,

[characterized in that] wherein

the communication system [(S)] further comprises a second node [(HLR)] maintaining subscription information including at least an indication indicating an allowed set of services for the subscription;

the first node [(SCP)] is arranged to perform the comparison and in response to the balance reaching the first limit to direct the second node to set the second set of services as the allowed set of services and in response to the balance, not any more reaching the first limit after reaching the first limit, to direct the second node to set the first set of services as the allowed set of services; and

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the second node [(HLR)] is arranged to send at least information on the allowed set of services as a part of the subscription information to the communication system during connection activation; in response to a received direction from the first node [(SCP)] to modify the first indication to correspond to the received direction; and in response to modifying the allowed set of services of an active connection to trigger deactivation of the connection.

16. (Amended) A communication system as claimed in claim 15, [characterized in that] wherein the subscription information maintained in the second node [(HLR)] further includes at least identification information on the first and second set of services and the indication indicates which one of the sets of services is the allowed set of services.

17. (Amended) A communication system as claimed in claim [14, 15 or 16 characterized in that] claim 13, wherein the communication system [(S)] supports the General Packet Radio Service; and the connection is activated by activating a PDP context.

18. (Amended) A network node [(SCP)] in a communication system providing a subscription with an account and at least a first limit, the network node being arranged to monitor the balance of the account,

[characterized in that] wherein

the network node [(SCP)] is arranged to compare the balance with the first limit and to allow access to a first set of services when the balance does not reach the first limit,

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and to allow access to a second set of services when the balance reaches or has reached the first limit.

19. (Amended) A network node [(SCP)] in a communication system providing a subscription with an account and at least a first limit, the network node being arranged to monitor the balance of the account,

[characterized in that] wherein

the network node [(SCP)] is arranged to communicate with a second network node; to compare the balance with the first limit; and to indicate to the second network node which set of services from among at least two different set of services defined for the subscription is the allowed set of services on the basis of said comparison.

20. (Amended) A network node [(SCP)] as claimed in claim 19, [characterized in that] wherein the network node [(SCP)] is arranged to indicate the allowed set of services in response to the balance reaching the limit and in response to the balance not any more reaching the limit.

21. (Amended) A network node [(GGSN, 2, FW)] in a communication system providing a subscription, [characterized in that] wherein the network node [(GGSN, 2 FW, HLR)] is arranged to receive from the communication system an indication indicating the use of a certain set of services from among at least two different set of services defined for the subscription; and in response to receiving the indication to provide access only to services included in the indicated certain set of services.

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22. (Amended) A network node as claimed in claim 21, [c h a r a c t e r i z e d in that] wherein the network node [(GGSN, 2 FW, HLR)] is arranged, in response to receiving the indication, to inform the user of the subscription of the services accessible via the indicated certain set of services.

23. (Amended) A network node as claimed in [claims 21 or 22, c h a r a c t e r i z e d in that] claim 21, wherein the network node [(GGSN, 2 FW, HLR)] is arranged to receive an access point name as the indication of the set of services, the access point name being used in the communication system to define where and how to connect the user of the subscription.

24. (Amended) A network node as claimed in [claims 21, 22 or 23, c h a r a c t e r i z e d in that] claim 21, wherein the network node is an application server [(2)].